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Science and Technology for Tomorrow's Aerospace Forces

Success Story

MOBILE TEST VAN ADDS NEW TESTING CAPABILITIES

The mobile test van is a proven autonomous, stand-alone system that is a valuable resource capable of generating coherent and non-coherent electronic attack signals. Technicians can set up the test van in nearly any terrain. Technicians can tailor the van, a flexible and dynamic system, to nearly any test conditions required. At a reasonable cost, the test van is adept for quick reaction or long-term tests.

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Accomplishment

Engineers at the Sensors Directorate developed a mobile test van to assist in evaluating electronic warfare techniques. The van is a self-contained resource that generates a variety of electronic signals simulating battlefield conditions. Technicians can configure the test van to provide a diverse array of electronic attack techniques including non-coherent noise, coherent noise, and coherent false targets. With this type of capability, engineers can perform numerous tests with the van on any terrain at a reasonable cost.

Background

The environment of electronic warfare is continuously evolving. Directorate engineers need quick and accurate simulations of a variety of jamming and waveform systems to accurately test new electronic warfare techniques. The directorate developed the test van to perform these difficult tasks.

The self-sufficient mobile van generates a variety of electronic warfare techniques. It is also highly configurable for multiple roles including generating synthetic coherent targets, coherent jamming, transponder jamming, noise jamming calibration targets, and radar parameter characterization.

Housed in a standard Ford truck, the van operates as a stand-alone system qualified to produce frequency coverage from high frequency to Ku bands for applications ranging from air-to-ground, ground-to-air, space-based or laboratory-based systems. In addition, man-portable generators are available for autonomous repeater operation that is either synchronous or nonsynchronous to the radar pulse repetition frequency.

Sensors
Support to the Warfighter

Additional information

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTT, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (01-SN-09)